

## ABSTRACT

An enhanced DVMRP method for regulating multicast traffic in a destination-based forwarding router is disclosed. As a plurality of neighbor multicast routers are detected and route reports exchanged, the enhanced DVMRP router transmits one or more restricted route reports, each of the restricted route reports omitting the routes associated with one or more of its branch interfaces. With the exception of the neighbor router detected on a given interface, a route report omits reference to other branch interfaces to prevent branch-to-branch routing of multicast streams that may cause a destination-based forwarding router in a multi-access network to transmit duplicate packets to a group member. The enhanced DVMRP method also employs flash updates indicating that some branch interfaces are inaccessible in order to prevent multicast routing through newly-detected neighbor multicast routers.